

IN THE CLAIMS:

The following listing of claims will replace all prior versions, and listings, of claims in the application.

1 - 47. (Cancelled)

48. (New) A computer-implemented method for associating a first block diagram with a user interface element, the method comprising:

displaying the user interface element, wherein the user interface element has an appearance that is separate from any data displayed in the user interface element;

receiving user input specifying the first block diagram to associate with the user interface element, wherein the first block diagram includes a plurality of interconnected nodes; and

associating the first block diagram with the user interface element, wherein the first block diagram is operable to change characteristics affecting the appearance of the user interface element.

49. (New) The method of claim 48, further comprising:

receiving user input to the user interface element; and

the first block diagram changing characteristics affecting the appearance of the user interface element in response to the user input received to the user interface element to.

50. (New) The method of claim 48,

wherein the user interface element comprises one of:

a user interface control; or

a user interface indicator.

51. (New) The method of claim 48,

wherein the first block diagram comprises a graphical data flow diagram.

52. (New) The method of claim 48, further comprising:
receiving user input for editing the first block diagram after said including the user interface element in the program; and
editing the first block diagram in response to the user input for editing the first block diagram;
wherein said editing the first block diagram comprises changing how the first block diagram changes characteristics affecting the appearance of the user interface element.

53. (New) The method of claim 48, further comprising:
including the user interface element in a program in response to user input;
executing the program; and
the first block diagram changing characteristics affecting the appearance of the user interface element during execution of the program.

54. (New) The method of claim 53, wherein said executing the program comprises:
displaying the user interface element;
receiving user input to the user interface element during execution of the program;
and
the first block diagram changing characteristics affecting the appearance of the user interface element in response to the user input received to the user interface element.

55. (New) The method of claim 48, further comprising:
including the user interface element in a graphical program in response to user input;
executing the graphical program; and
the first block diagram controlling functionality of the user interface element during execution of the graphical program.

56. (New) The method of claim 55,
wherein the graphical program includes a second block diagram;
wherein the second block diagram is separate from the first block diagram.

57. (New) The method of claim 56,
wherein the first block diagram is accessible from the second block diagram.

58. (New) The method of claim 56, further comprising:
copying the user interface element from a first graphical program to a second graphical program; and
automatically including the first block diagram in the second graphical program in response to said copying.

59. (New) The method of claim 48,
wherein the first block diagram is operable to change a manner in which data is displayed in the user interface element.

60. (New) A computer-implemented method for including a user interface element in a graphical program, the method comprising:

receiving user input specifying inclusion of the user interface element in the graphical program, wherein the user interface element has an appearance that is separate from any data displayed in the user interface element, wherein the user interface element has an associated first block diagram that is operable to change characteristics affecting the appearance of the user interface element, wherein the graphical program includes a second block diagram that implements functionality of the graphical program, wherein the second block diagram is separate from the first block diagram associated with the user interface element;

including the user interface element in the graphical program in response to the user input;

wherein, during execution of the graphical program, the first block diagram associated with the user interface element is operable to change characteristics affecting the appearance of the user interface element and the second block diagram is operable to control the functionality of the graphical program.

61. (New) The method of claim 60,

wherein, during execution of the graphical program, the first block diagram associated with the user interface element is operable to change a manner in which data is displayed in the user interface element.

62. (New) The method of claim 60,

wherein the second block diagram is operable to provide data to the user interface element;

wherein the first block diagram associated with the user interface element is operable to receive the data from the second block diagram and process the data.

63. (New) The method of claim 60,

wherein the second block diagram is operable to provide data to the user interface element;

wherein the first block diagram associated with the user interface element is operable to receive the data from the second block diagram and change a visual appearance of the user interface element based on the data.

64. (New) The method of claim 60,

wherein the first block diagram associated with the user interface element is operable to receive user input to the user interface element and change a visual appearance of the user interface element based on the user input to the user interface element.

65. (New) The method of claim 60,

wherein said including the user interface element in the graphical program comprises including the first block diagram associated with the user interface element in the graphical program.

66. (New) A computer-implemented method for executing a graphical program, the method comprising:

receiving user input to a user interface element of the graphical program, wherein the user interface element has an associated block diagram, wherein the user interface element has an appearance that is separate from any data displayed in the user interface element;

wherein the graphical program includes a main block diagram, wherein the main block diagram is separate from the block diagram associated with the user interface element;

executing the block diagram associated with the user interface element in response to the user input to the user interface element;

wherein said executing the block diagram comprises controlling an appearance of the user interface element in response to the user input to the user interface element.

67. (New) A memory medium for associating a first block diagram with a user interface element, the memory medium comprising program instructions executable to:

display the user interface element, wherein the user interface element has an appearance that is separate from any data displayed in the user interface element;

receive user input specifying the first block diagram to associate with the user interface element, wherein the first block diagram includes a plurality of nodes; and

associate the first block diagram with the user interface element, wherein the first block diagram is operable to change characteristics affecting the appearance of the user interface element.

68. (New) The memory medium of claim 67, further comprising program instructions executable to:

include the user interface element in a program in response to user input; and
execute the program;

wherein the first block diagram is operable to change characteristics affecting the appearance of the user interface element during execution of the graphical program.

69. (New) The memory medium of claim 68, wherein said executing the program comprises:

displaying the user interface element;
receiving user input to the user interface element during execution of the program;

and

wherein the first block diagram is operable to change characteristics affecting the appearance of the user interface element based on the user input received to the user interface element.

70. (New) The memory medium of claim 67, further comprising program instructions executable to:

receive user input to the user interface element;

wherein the first block diagram is operable to respond to the user input received to the user interface element to change characteristics affecting the appearance of the user interface element.

71. (New) The memory medium of claim 67,

wherein the first block diagram is operable to change a manner in which data is displayed in the user interface element.

72. (New) The memory medium of claim 67, wherein the program instructions are further executable to:

copy the user interface element from a first graphical program to a second graphical program;

automatically include the first block diagram in the second graphical program in response to said copying.

73. (New) The memory medium of claim 67, wherein the program instructions are further executable to:

copy the user interface element from a first graphical program to a second graphical program;

automatically associate the first block diagram with the second graphical program in response to said copying.

74. (New) A memory medium for including a user interface element in a graphical program, the memory medium comprising program instructions executable to:

receive user input specifying inclusion of the user interface element in the graphical program, wherein the user interface element has an appearance that is separate from any data displayed in the user interface element, wherein the user interface element has an associated first block diagram that is operable to change characteristics affecting the appearance of the user interface element, wherein the graphical program includes a second block diagram that implements functionality of the graphical program, wherein the second block diagram is separate from the first block diagram associated with the user interface element;

include the user interface element in the graphical program in response to the user input;

wherein, during execution of the graphical program, the block diagram associated with the user interface element is operable to change characteristics affecting the appearance of the user interface element and the second block diagram is operable to implement functionality of the graphical program.

75. (New) The memory medium of claim 74,

wherein the second block diagram is operable to provide data to the user interface element;

wherein the first block diagram associated with the user interface element is operable to receive the data from the second block diagram and change characteristics affecting the appearance of the user interface element based on the data provided to the user interface element.

76. (New) The memory medium of claim 74,

wherein the first block diagram associated with the user interface element is operable to receive user input to the user interface element and change characteristics affecting the appearance of the user interface element based on the user input.

77. (New) A memory medium for executing a graphical program, the memory medium comprising program instructions executable to:

receive user input to a user interface element of the graphical program, wherein the user interface element has an appearance that is separate from any data displayed in the user interface element, wherein the user interface element has an associated block diagram;

wherein the graphical program includes a main block diagram, wherein the main block diagram is separate from the block diagram associated with the user interface element;

execute the block diagram associated with the user interface element in response to the user input to the user interface element;

wherein said executing the block diagram comprises changing characteristics affecting the appearance of the user interface element in response to the user input to the user interface element.

78. (New) A computer-implemented method for creating a compound user interface control, the method comprising:

displaying a plurality of user interface elements, wherein each of the plurality of user interface elements has an appearance that is separate from any data displayed in the user interface element;

receiving user input specifying a first block diagram to associate with the plurality of user interface elements, wherein the first block diagram includes a plurality of interconnected nodes; and

associating the first block diagram with the plurality of user interface elements, wherein the first block diagram is operable to change characteristics affecting the appearance of one or more of the plurality of user interface elements.

79. (New) The method of claim 78,

wherein the plurality of user interface elements comprises a plurality of primitive user interface controls provided by an application development environment.